

REMARKS

The Office Action dated February 19, 2008, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-12 and 14-38 are currently pending in the application, of which claims 1, 20-22, and 38 are independent claims. Claims 1-12 and 14-22 have been amended, and claims 23-38 have been added, to more particularly point out and distinctly claim the invention. No new matter has been added. Claim 13 has been cancelled without disclaimer or prejudice. Claims 1-12 and 14-38 are respectfully submitted for consideration. Entry of the amendments is respectfully requested on the basis of the enclosed Request for Continued Examination (RCE).

Claims 1-15 and 17-22 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,694,471 of Sharp (“Sharp”). Applicant respectfully submits that the claims recite subject matter that is neither disclosed nor suggested by Sharp.

Claim 1 is directed to a system including a plurality of entities. At least two of said entities are configured to use stream control transmission protocol for signaling therebetween. The stream control transmission protocol signaling includes a source port number, a destination port number, data, and connection identity information relating to a connection between at least two of said entities. The connection identity information identifies the ultimate destination of said data.

Claim 20, upon which claims 23-37 depend, is directed to a method including sending stream control transmission protocol transport signaling information from an

entity to another entity. The stream control transmission protocol signaling information includes a source port number, a destination port number, data, and connection identity information relating to a connection between said two entities. The connection identity information identifies the ultimate destination of said data.

Claim 21, upon which claims 2-12 and 14-19 depend, is directed to an apparatus including a transmitter configured to send to another entity a stream control transmission protocol transport packet. The transmitter is configured to include in said packet a source port number, a destination port number, data, and connection identity information relating to a connection between the entity and the another entity. The connection identity information identifies the ultimate destination of said data.

Claim 22 is directed to an apparatus including sending means for sending to another entity a stream control transmission protocol transport packet. The apparatus also includes including means for including in said packet a source port number, a destination port number, data, and connection identity information relating to a connection between the entity and the another entity. The connection identity information identifies the ultimate destination of said data.

Claim 38 is directed to a computer-readable medium encoded with instructions that, when executed perform a process. The process includes sending stream control transmission protocol transport signaling information from an entity to another entity. The stream control transmission protocol signaling information comprises a source port number, a destination port number, data, and connection identity information relating to a

connection between said two entities. The connection identity information identifies the ultimate destination of said data.

Applicant respectfully submits that Sharp fails to disclose or suggest all of the elements of any of the presently pending claims.

Sharp generally relates to a system and method for periodic retransmission of messages. More specifically, Sharp discusses a system and method for periodic retransmission of messages from a source (computer 12/application 16) to a destination (another computer 12/application 16). The packet transport service may be the Stream Control Transmission Protocol (SCTP).

At column 4, lines 27-33, Sharp describes the SCTP header of a packet that is used to communicate messages between the applications (both numbered 16). The packet header includes a source port number (56) and a destination port number (58).

Applicant respectfully submits that Sharp fails to disclose or suggest at least the following features of claim 1 (emphasis added):

“wherein said stream control transmission protocol signaling comprises a source port number, a destination port number, data, and connection identity information relating to a connection between at least two of said entities, and

wherein said connection identity information identifies the ultimate destination of said data.”

These features in claim 1 are different from Sharp.

The Office Action pointed to col. 2, lines 54-61, and col. 4, lines 37-40, as allegedly discussing the inclusion of connection identity information in the SCTP signaling. Applicant respectfully disagrees.

Col 2, lines 54 – 61, of Sharp, state that the protocol stack may include any other suitable components that may function as intermediate layers. The connection identity information of certain embodiments of the present invention provide information related to the final destination of the SCTP data. In Sharp, in contrast, the additional intermediate layers would form part of the source (the protocol stack from which the SCTP signal originates).

The connection identity information is defined in the present application at page 10, lines 26 – 28, as “additional information used to identify an entity, application, signalling flow, connection or the like.” This clearly refers to the destination of the packet as discussed in the examples on page 10, lines 15 to 26.

Considering that the additional layers of Sharp would form part of the source (protocol stack from which the SCTP signalling originates) and the connection identity information is concerned with the ultimate destination of the data, it is unclear as to how the additional layers of Sharp would imply the inclusion of connection identification information that identifies the ultimate destination of the data. It is respectfully submitted that no such inference would be drawn by one of ordinary skill in the art, and it is respectfully submitted that no such inference has been established by the Office Action on the record.

Furthermore for the above reasons, Applicant respectfully disagrees that the inclusion in Sharp of other components or intermediate layers in a protocol stack would correspond to application, signalling flow, and connection in the same manner as the claimed invention – despite the allegations in the Office Action at page 10.

The Office Action has also relied on col.4, lines 37 to 40, of Sharp wherein a chunk is described as including a chunk type field, a flag field, a chunk length field and a chunk value. The chunk may contain control information or application data. Although the type and format of the data included as the chunk value is dependent on the chunk type, there is no indication of this including any additional addressing or connection identity information as recited in the claims. It is, thus, submitted that Sharp does not describe connection identity information as defined by the present application.

The Office Action has also pointed to col. 7, line 33, as describing the connection identity information identifying the ultimate destination of the data. Sharp describes the operation of the SCTP layer in one SCTP association (*i.e.* between the applications 16). Sharp does not describe multiple SCTP associations. For an example of multiple associations, see Figure 3 of the present application, where the link between the IP BTS and the CN is made via two SCTP associations, the first from the IP BTS to the RNAS and the second from the RNAS to the CN.

Because Sharp discloses only one association, the standard SCTP addressing (*i.e.* the source and destination ports and stream identifiers) identifies the destination of the packet. The destination endpoint as indicated by the Examiner in col. 7, line 33, is the point to which the standard addressing of the SCTP packet indicates.

It is also submitted that Sharp does not describe the connection identity information identifying the ultimate destination of the data.

Furthermore, col. 2, lines 45 to 47, of Sharp describe user applications communicating through messages. This implies the inclusion of application layers in the protocol stacks. There is no suggestion of inadequate addressing in the application layer and, thus, it would be understood by one of ordinary skill in the art that there is no need for connection identity information. In contrast, in certain embodiments of the present invention such connection identity information can advantageously overcome the inadequate addressing capabilities of the application layer.

The Office Action, at pages 9-10 (items 8-9), appears to have noted that the specification provides a definition for the terms used in the claims, and yet appears to have disregarded it, noting that although claims are interpreted in light of the specification, limitations from the specification are not read into the claims, and citing *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant is entitled to be his own lexicographer. *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). When, as in the present application, an explicit explanation is provided by the applicant for a term, that definition controls interpretation of the term as it is used in the claim. *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999). Accordingly, it is respectfully submitted that the Office Action is required to recognize the meaning of the terms defined in the present application's specification.

Claim 16 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sharp in view of U.S. Patent Application Publication No. 2001/0053145 of Willars (“Willars”). Applicant respectfully submits that claim 16 recites subject matter that is neither disclosed nor suggested by the combination of Sharp and Willars.

Claim 16 depends from and further limits claim 1. At least some of the deficiencies of Sharp with respect to claim 1 are discussed above. Willars does not remedy the above-identified deficiencies of Sharp, whether or not Willars remedies the deficiencies of Sharp for which it was cited.

Willars generally relates to combining differing transport technologies in a telecommunication system. The Office Action cited Willars with respect to a feature relating to forwarding SCTP packets. Accordingly, it is unsurprising that Willars fails to remedy the above-identified deficiencies of Sharp. Accordingly, it is respectfully submitted that the combination of Sharp and Willars fails to disclose or suggest all of the elements of any of the presently pending claims, and it is respectfully requested that the rejection of claim 16 be withdrawn.

Additionally, certain embodiments of the present invention possess critical and unobvious advantages. For example, certain embodiments of the present invention remove the requirement for an extra layer between the stream control transmission protocol (SCTP) layer and the radio access network application part (RANAP) layer in an internet protocol based system. The RANAP layer does not (conventionally) contain sufficient addressing information in the application level messages, and therefore accurate addressing has (conventionally) to be done below this layer. Rather than

introducing an extra layer which greatly complicates the system, a better solution is provided by certain embodiments of the present invention.

According to the present invention as recited in independent claims 1, 20, 21, and 22, SCTP signaling/SCTP transport packets between at least two entities in an internet protocol based system can include connection identity information relating to a connection between the at least two entities, in addition to the source and destination port numbers defined by the SCTP protocol.

As discussed above, a link between two endpoints may involve more than one SCTP association (peer-to-peer connection). A problem arises in that the RANAP layer does not provide sufficiently accurate addressing information. Consequently, in some systems the so-called “adaptation layer” is required to provide this accurate addressing. This layer is complex so as to provide addressing within a range of interconnected systems (*e.g.* a GSM network connected to an IP based network).

The present inventor has recognized that when a signal is to be sent between two endpoints wholly within an IP based network, such an adaptation layer is unduly complex, and serves only to complicate the system, increase costs and decrease performance.

Certain embodiments of the present invention, therefore, provide the SCTP layer with connection identity information, identifying the ultimate destination of the signal, such that the adaptation layer is not required in such instances. In a preferred embodiment, this information can be provided in the “Payload Protocol Identifier” field of the SCTP packet, as discussed at page 11, lines 4-9, of the present application.

As discussed above, there is no disclosure in Sharp of SCTP signaling comprising “data and connection identity information relating to a connection between at least two of said entities, wherein said connection identity information identifies the ultimate destination of said data” as recited in the presently pending claims.

Sharp fails to recognize a need for such addressing, since it is concerned only with a single SCTP association. Therefore, there is no teaching within Sharp that would motivate one of ordinary skill in the art to provide such connection identity information, in addition to the source port number and destination port number.

Furthermore, even if one of ordinary skill in the art determined that there was a need for such addressing, there is certainly no suggestion within Sharp that such addressing can be provided in the SCTP signal, as recited in the presently pending claims. Indeed, one of ordinary skill in the art would instead have chosen to provide the adaptation layer discussed above, because it was the conventional solution.

For all these reasons, Applicant respectfully submits that there is positive evidence of non-obviousness in the form of secondary conditions, that the claims include subject matter that is non-obvious with respect to Sharp and/or Willars.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicant’s undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,


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Enclosures: RCE Transmittal
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